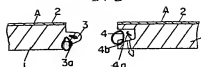


- 1—基材
2—本質化被膜
3—合金被膜
3a—膜止の突起部
4—合金凹所
4a—膜止の凹所

第1図



第2図



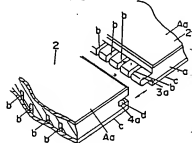
第3図



第4図



第5図



- cited by
Unilever

- JDL working
copy - '836

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⑩ 日本国特許庁 (JP)

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⑤ 発明の名称 置敷き床材

⑥ 特 願 平1-306911

⑥ 出 願 平1(1989)11月27日

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明 細 書

1. 発明の名称

置敷き床材

2. 特許請求の範囲

(1) 床下地面上に置敷きされる置敷き床材であって、柔軟性を有するシート状の合成樹脂成形品製の基材の表面に薄い木質化粧板が積層され、基材の一端端に嵌合突起が形成され、他端端に嵌合突起が嵌合することができる嵌合凹部が形成され、嵌合突起と嵌合凹部との一方に嵌止め突起が形成され、他方に嵌止め突起が係入して嵌止めを固める嵌止めの凹部が形成されて成ることを特徴とする置敷き床材。

3. 発明の詳細な説明

〔産業上の利用分野〕

本発明は、モルタル、コンクリート等により仕上げられた床下地上に直接に敷設される置敷き床材に関し、詳しくは木質の表面を有しながら、木質系における反りを回避し、挽み性も付与し、か

かる構成のものを製作容易に得るとともに、その施工において嵌止めを行う嵌止め構成も容易に形成しようとする技術に係るものである。

〔従来の技術〕

従来から、モルタル、コンクリート等により仕上げられた床下地上に敷設される木質床材は知られている。例えば、第4図に示す如く、木質合板のような木質基板1aの表面に複数個の溝bを並設し、同裏面にクッション材cを貼着してなる木質床材Aaが知られている。ところでこのような木質床材Aaは、床下地上に接着剤または釘打ち施工等により固定されて敷設施工されるものであり、溝bとクッション材cによって、防音効果が得られるものである。しかしながら、このような木質床材Aaにおいては、溝bが設けられているものの、木質基板1aには屈曲柔軟性がなく、充分な屈曲柔軟性を得るために、溝bの並設個数を増やしたり成いは溝bの高さ寸法を深く形成した場合には、溝cに対峙して木質化粧板2の表面に亀裂が発生し、強度及び表面塗装上問題になるものであ

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22 103(9) maple stedes 626

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た。それ故に、木質材材 A において、充分な
屈曲変位性がないままに、床下地土に施工を要す
場合、床下地土の馴染みが悪くために、床下地土
に接合部は打釘加工等により固定して、強制的
に床下地に馴染ませて施工していた。この場合、
施工に接合部は打釘等の作業が伴って、敷設施
工が面倒であるとともに、木質材材 A の取り替
えが僅かの区間とならなものであった。加えて、木
質系板 1 に多数本の鋼釘の加工を精度良く行ひの
が費量であった。その製作面及び機能面において、問題
がなかった。しかも第 5 図に示すように、木質
材材 1 の一側端に嵌合突路 3 を形成し、他側端に
嵌合凹所 4 を形成して、両者を嵌合させて木質
材材 A の A 同士を接合するのであるが、かかる
接合に際しては、嵌合凹所 4 に接合部 5 を形成し
て止めねを固めるのである。ところがこのように接
合部 5 が現われる点においては、その嵌合時に
接合部 5 がはみ出し、これの抜き取り作業を要す
等の問題がある。

〔発明が解決しようとする課題〕

れて成ることを特徴とするものである。

【作用】

このように、柔軟性を有するシート状の基材1の底面に薄い水酸化塩基2が被覆されることによつて、柔軟性を有するシート状の基材1には本基材の、ような反りが生じることがなく、基材1には柔軟性によつて張み性を付与し、床下地面に密着しうようにし、床下地面の凹凸をより吸収し、床下地面によりびたりと接することゝ、重き収束材の滑りを抑えることとなつて、床下地上に直接に接着(直装)施工が行ふこととなり、重き収束材の滑りを抑えることとなつて、床下地上に直接に接着(直装)施工が行ふこととなり、かかる柔軟性を有するシート状の基材1に反張の張力を抑制し、防汚性も高め、異加工を回避して、その生産性を高め、そして成形品の基材1となる場合には、樹脂の選択して注法安定化を図りやすく、機械との適合を図る部品の製作も容易になし、コストダウンもなし、種々の付加価値を加ふことができ、しかも基材1の一個個に嵌合突起3が形成され、塊塊に嵌合突起3が嵌合することゝ

本発明は、上述従来の技術における欠点を解消するために発明されたものである。その課題は、素材に充分な強度柔軟性があり、床下段への馴染みが良く、しかも、木質化板面の表面側には電磁波が発生し難く、強度面からは表面仕上げの問題がなく、床下段下面に接合部は釘打上等の作業が少なく、かつ敷設工である、かつ遮断物制及防音を充分に行うことができる、その生産も大巾に高めることができる、かつ接縫に際しても容易に色調を行うことができる、置敷きと床材を提携することである。

〔誤差を解決するための手段〕

本発明の置きき床材は、床下地面上に置設とされる置きき床材であって、柔軟性を有するシート状の基材1の表層に薄い木質化粧板2が積層され、基材1の一端部に嵌合突部3が形成され、他端部に嵌合突部3が嵌合することができる嵌合凹部4が形成され、嵌合突部3と嵌合凹部4との一方に放止め突部3aが形成され、他方に放止め突部3aが挿入して放止めを施す放止め凹部4aが形成さ

である統合四所4が形成され、統合突郭3と統合
 四所4の一方に止む突郭3aが形成され、他方
 に止む突郭3bが保入して止むのを図る統合
 四所4aが形成されることによって、統合突郭
 3を統合四所4に統合させることにも止む突郭
 3aを止む四所4aに保合させることで、換気所
 の使用を促進して、置換と床材A、A同士の接合
 を容易に進に行え、置換と施工に有利になし、か
 つかつ後続のための構成も容易に得られるよう
 にしたものである。

【三、案例】

以下本発明の実施例を図面に基づいて詳述する。

木材を薄くスライスして木目を有する突板(スライス単板)のような木質化化粧板2が、合成樹脂製で柔軟性があり、シート状の基材1の表面に貼着しており、その基材1の一端縁には嵌合突部3が形成され、他端縁には嵌合凹所4が形成されている。このような嵌合突部3及び嵌合凹所4の形成は、基材1の成形時に同時に行なわれる。そして木質化化粧板2は、 $0.25\text{mm} \sim 0.6\text{mm}$ 程度の厚

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FLOORING MEMBER TO BE LAID OUT

(1) A flooring member to be laid out on an underfloor base, characterized in that: a thin woody decorative panel is laminated on the surface of a flexible sheet-like base member made of a synthetic resin molding; fitting projections are formed on one side of the base member, while fitting concave portions into which the fitting projections can be fitted are formed on the other side; and disengagement-preventing projections are provided for either the fitting projections or the fitting concave portions, while disengagement-preventing concave portions into which the disengagement-preventing projections are inserted for preventing disengagement are provided for the other ones.

[Field of Industrial Use]

The present invention relates to a flooring member to be laid out directly on an underfloor base which is finished by use of mortar, concrete, or the like. More

specifically, the present invention is directed to a technique for enabling easy fabrication of a flooring member which has a woody surface but is flexible and prevented from warping, and also to a technique for enabling easy fabrication of a disengagement-preventing structure used when the flooring member is laid out.

[Prior Art]

Conventionally, woody flooring members to be laid out on an underfloor base finished by use of mortar, concrete, or the like, have been known in the art. For example, a woody flooring member Aa, such as that shown in FIG. 4, has been known in the art. As shown, the woody flooring member Aa comprises a woody base plate 1a, such as a grain finish plywood, and a plurality of grooves b formed in the reverse surface of the woody base plate 1a in such a manner that they extend in parallel to one another. A cushion member c is pasted to the reverse surface of the woody base plate 1a. This type of woody flooring member Aa is laid out on an underfloor base and is made immovable by use of an adhesive or by nailing. The grooves b and the cushion member c produce a soundproof effect. Despite the grooves b, however, this type of woody flooring member Aa is disadvantageous in that the woody base plate 1a does not have flexure and plasticity. In order to provide this characteristic for the woody base plate 1a, a larger number

of grooves b have to be formed, or the grooves b must be deeper. If this is done, however, ~~a woody decorative panel~~ 2 is likely to crack, so that the provision of such grooves a becomes a problem from the viewpoints of the strength and the surface design. In practice, therefore, the woody flooring member Aa is laid out on the underfloor base without providing sufficient flexure and plasticity. Since the woody flooring member Aa is not compatible with the underfloor base, it is fixed to the underfloor base by use of an adhesive or by nailing, so as to forcibly provide the compatibility. In this case, the layout operation is accompanied by the operation for adhesive bonding or nailing and is thus troublesome. In addition, once the woody flooring member Aa is laid out, it cannot be easily replaced with another. Further, since a large number of grooves b cannot be formed in the woody base plate 1a with high precision, the woody base plate 1a has problems from the standpoints of fabrication and function as well. As shown in FIG. 5, woody flooring members Aa and Aa are connected together by fitting the fitting projections 3a formed on one side of one woody base member 1a into the fitting concave portions 4a formed on the other side of the other woody base member 1a, and when this connection is performed, the fitting concave portions 4a are filled with an adhesive d, for the prevention of disengagement. Where

the adhesive d is used, it may come out of the concave portions at the time of the fitting operation, and the residual adhesive has to be wiped away.

[Problems To Be Solved by the Invention]

The present invention has been made in an effort to solve the problems described above, and the object of the present invention is to provide a flooring member which is to be laid out and which enables: the base member has sufficient flexure and plasticity and has compatibility with the underfloor base, the surface of the woody decorative panel hardly cracks, the problems related to the strength and the surface design do not occur, the layout operation is performed on the underfloor base without performing adhesive bonding or nailing, the suppression of vibration and the insulation of sound are performed, a remarkably improved productivity is ensured, and the connecting operation can be easily performed in a short time.

[Means for Solving the Problems]

The present invention provides a flooring member which is to be laid out on an underfloor base and which is characterized in that: a thin woody decorative panel 2 is laminated on the surface of a flexible sheet-like base member 1; fitting projections 3 are formed on one side of the base member 1; fitting concave portions 4 into which

the fitting projections 3 can be fitted are formed on the other side; disengagement-preventing projections 3a are provided for either the fitting projections 3 or the fitting concave portions 4; and disengagement-preventing concave portions 4a into which the disengagement-preventing projections 3a are inserted for preventing disengagement are provided for the other ones.

[Operation]

As described above, a thin woody decorative panel 2 is laminated on the surface of a flexible sheet-like base member 1. With this structure, the flexible sheet-like base member 1 does not warp, unlike the woody base plate. The base member 1 is provided with plasticity and flexure, so that it has compatibility with the underfloor base. Since the base member 1 absorbs the roughness of the underfloor base and can be set in tight contact with the underfloor base, the flooring member A is prevented from sliding. Accordingly, the flooring member A can be easily laid out directly on the underfloor base without the necessity of performing adhesive bonding or nailing. Due to the flexible sheet-like base member 1, the propagation of vibration can be suppressed, and the sound insulation effect is improved. Since special measures need not be taken for the grooves, the productivity is enhanced. Where the base member 1 is made of a molding, the desired

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A woody decorative panel 2, which is like a sliced veneer obtained by slicing wood and having a grain pattern, is laminated on the surface of a sheet-like base member 1 which is flexible and formed of a synthetic resin. Fitting projections 3 are formed on one side of the base member 1, while fitting concave portions 4 are formed on the other side. The fitting projections 3 and the fitting concave portions 4 are formed simultaneous with the fabrication of the base member 1. The woody decorative panel 2 may be a sliced veneer which is about 0.25-0.6 mm in thickness and which is lined with a dry lauan veneer of about 1 mm to 2 mm. Alternatively, the woody decorative panel 2 may be a sliced veneer which is about 1-3 mm in thickness. This woody decorative panel 2 is laminated and adhered to the base member 1, which is made of a synthetic resin molding. The woody decorative panel 2 is laminated and joined when the base member 1 is molded, or adhered thereto independently of the molding operation of the base member 1. As the base member 1, it is preferable to employ a sound-insulating sheet which contains metallic powder, for example, and which is improved in sound isolation or sound insulation characteristics.

As described above, the thin woody decorative panel 2 is laminated on the surface of the flexible sheet-like base member 1. With this structure, the flexible sheet-like

base member 1 does not warp unlike the wooden base plate. Due to the flexibility, the base member 1 is reliably compatible with the surface of the underfloor base. Since it absorbs the roughness of the underfloor base and can be set in tight contact with the underfloor base, the flooring member A is prevented from sliding. Accordingly, the flooring member A can be easily laid out directly on the underfloor base without the necessity of performing adhesive bonding or nailing. Due to the flexible sheet-like base member 1, the propagation of vibration can be suppressed, and the sound insulation effect is improved. Since special measures need not be taken for the grooves, the productivity is enhanced. In addition, since the base member 1 is made of a molding, the desired dimensions can be attained by selectively using a suitable resin, and the coupling sections (such as the fitting projections 3 and fitting concave portions 4) used for coupling adjacent flooring members can be easily fabricated.

As shown in FIG. 1, the disengagement-preventing projections 3a are provided for the fitting projections 3, and the disengagement-preventing concave portions 4a into which the disengagement-preventing projections 3a are inserted for preventing disengagement are provided for the disengagement-preventing concave portions 4a. With this structure, when the fitting projections 3 are fitted into

the fitting concave portions 4, and the disengagement-preventing projections 3a are engaged with the disengagement-preventing concave portions 4a, the flooring members A, A can be coupled together easily and in a short time, with no need to use an adhesive. In this manner, the flooring members A, A can be easily laid out, and the structure for coupling them can be easily attained. At the time of coupling, the lower piece 4b of the fitting concave portion 4 is elastically deformed downward in accordance with the fitting movement of the fitting projection 3. After the fitting projection 3 is completely fitted in, the lower piece 4b moves back to the original position, thus ensuring reliable prevention of disengagement. The flooring members are moved in the cut-end direction for layout by sliding them in the direction of arrow (u) in FIGS. 2 and 3. In FIG. 3, the direction indicated by arrow (v) represents the fitting direction in which the fitting projection 3 is fitted into the fitting concave portion 4.

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slide *

[Advantages of the Invention]

As can be seen from the above, according to the present invention, a thin woody decorative panel is laminated on the surface of a flexible sheet-like base member. With this structure, the flexible sheet-like base member does not warp, unlike the woody base plate. The base member is provided with plasticity and flexure, so

that it has compatibility with the underfloor base. Since the base member absorbs the roughness of the underfloor base and can be set in tight contact with the underfloor base, the flooring member is prevented from sliding. Accordingly, the flooring member can be easily laid out directly (directly layout) on the underfloor base without the necessity of performing adhesive bonding or nailing. Due to the flexible sheet-like base member, the propagation of vibration can be suppressed, and the sound insulation effect is improved. Since special measures need not be taken for the grooves, the productivity is enhanced. Where the base member is made of a molding, the desired dimensions can be attained by selectively using a suitable resin, and the coupling sections used for coupling adjacent flooring members can be easily fabricated. Hence, the cost reduction can be attained, and a variety of values can be added. In addition, the fitting projections are formed on one side of the base member, while the fitting concave portions into which the fitting projections can be fitted are formed on the other side of the base member. Moreover, disengagement-preventing projections are provided for either the fitting projections or the fitting concave portions, while disengagement-preventing concave portions into which the disengagement-preventing projections are inserted for preventing disengagement are provided for the

other ones. With this structure, when the fitting projections are fitted into the fitting concave portions, and the disengagement-preventing projections are engaged with the disengagement-preventing concave portions, the flooring members can be coupled together easily and in a short time, with no need to use an adhesive. In this manner, the flooring members can be easily laid out, and the structure for coupling them can be easily attained.

4. Brief Description of the Drawings

FIG. 1 is a sectional view showing a coupling operation according to one embodiment of the present invention. FIG. 2 is a sectional view showing the coupled state according to the embodiment. FIG. 3 is a plan view showing the layout manner according to the embodiment. FIG. 4 is a sectional view showing the prior art. FIG. 5 is a perspective view showing the coupling operation according to the prior art. Numeral 1 denotes a base member, 2 denotes a woody decorative plate, 3 denotes a fitting projection, 3a denotes a disengagement-preventing projection, 4 denotes a fitting concave portion, and 4a denotes a disengagement-preventing concave portion.

- 1—基材
 2—水硬化剤或
 3—嵌合突起
 4—嵌合の突起
 4a—嵌合の凹部

